

# Airfield paving project uses cutting edge technology

by Joan Mier

Albuquerque District is currently managing construction of the airfield parking apron using a sophisticated technology that has not been used anywhere in the U.S. for this type of work, according to Dale Carver, project engineer. A total of 270,000 square-yards of concrete are being placed on 60 acres of apron at Kirtland Air Force Base using no guide strings for the slip form paving operation. Instead, the \$250,000 piece of equipment uses computers to remotely control the paver, sensing alignment and elevation to guide and direct precise placement of the concrete.

The new technology hails from Europe and is now getting a lot of interest from United States contracting firms and agencies, Carver said. A.S. Horner Inc. was awarded the \$15.8 million design/build contract in September 2000 and opted to use the new technology which originates from Switzerland's Leica Geosystems Inc.

GPS technology drives and guides the pavers, controlling steering and grade as well as final positioning of the concrete slab, Carver said. Four legs on the paver move up and down independently of each other, depending on what the computer instructs them to do.

The biggest advantages are set-up time and accuracy, Carver said.



Photo courtesy of U.S. Air Force

**This equipment paves alternate lanes to allow the concrete to settle. Its legs are guided by computerized remote control allowing for precise placement of the concrete.**

"Setting up slip form paver guide strings is very tedious and labor intensive," he said. "For that, you need a survey crew and laborers to set it up. So we save money in both set up and labor costs. There is also more of a chance for human error using the guide strings because every placement point is set by the human eye. This technology uses a computer and is very accurate."

A portable batch plant, Carver said, is manufacturing all the concrete on-site. The contractor has been averaging approximately 1,000 cubic yards of concrete placement per shift.

The equipment is paving 15-inch thick, 20-foot wide sections to replace apron that is 50 years old, according to Kent Heyne, program manager. Due to New Mexico's hot daytime temperatures, paving is now being accomplished only at night, beginning around 10 p.m. and finishing up at dawn.

The work is being done in support of the 58<sup>th</sup> Special Operations Wing for the CV-22 "beddown," Heyne said. It's nearly halfway completed and final completion is expected in August 2002. o

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## Agencies reach landmark conservation water agreement *(Continued from page 1)*

workgroup, comprised of a host of stakeholders and managers, is charged with developing a long-term strategy when the three-year agreement comes to an end.

Although some environmental groups have expressed concern that 30,000 acre-feet will not be enough water to save the minnow, it has so far proven extremely

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successful, Kreiner said.

"We've never had this much cooperation from all the agencies involved," he said. "They are really knocking themselves out to make this work. The minnow is an indicator of the health of the river, and we are trying to restore both aquatic and riparian habitat in the river." o